

Notice of Allowability

Application No.

09/762,555

Examiner

Christian La Forgia

Applicant(s)

MITTENTHAL, LOTHROP

Art Unit

2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 14 May 2007.
2. ☒ The allowed claim(s) is/are 1,2,4,7-10,12,13,16,17,20,21 and 23.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


AYAZ SHEIKH

**SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100**

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. The application has been amended as follows:

Claim 1 (Currently Amended) A method of deterministically generating maximal nonlinear block substitution tables for a predetermined block size, comprising:

- selecting a first generating function;

- selecting a second generating function;

- selecting first and second sets of complete linearly independent numbers;

- calculating first and second linear orthomorphisms from the generating functions and the sets of linearly independent numbers;

- creating a maximal nonlinear block substitution table by combining the linear orthomorphisms; and

- encrypting a clear text message utilizing the block ~~substation~~ substitution table.

Claim 16 (currently amended) A computer-implemented method for deterministically generating maximal nonlinear block substitution tables from binary data, comprising:

- selecting a first set of a plurality of complete linearly independent numbers from the binary data;

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selecting a second set of a plurality of complete linearly independent numbers from the binary data;

generating a plurality of linear orthomorphisms using first and second recursive generating functions and the first and second sets of linearly independent numbers;

setting a maximal nonlinear substitution table based on a combination of the linear orthomorphisms; and

encrypting a clear text message utilizing the ~~substation~~ substitution table, wherein the clear text message is in the form of a sequence of binary numbers.

DETAILED ACTION

3. The amendment of 14 May 2007 has been noted and made of record.
4. Claims 1, 2, 4, 7-10, 12, 13, 16, 17, 20, 21 and 23 have been presented for examination.
5. Claims 1, 2, 4, 7-10, 12, 13, 16, 17, 20, 21 and 23 are allowed.

Response to Arguments

6. Applicant's arguments, see pages 8-11, filed 14 May 2007, with respect to the 35 U.S.C. 112, 2nd paragraph and the 35 U.S.C. 101 rejections have been fully considered and are persuasive. The rejection of claims 1, 2, 4, 7-10, 12, 13, 16, 17, 20, 21 and 23 has been withdrawn.

Allowable Subject Matter

7. The examiner's statement of reasons for allowance can be found on page 5 of the Office Action of 12 January 2007.
8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian La Forgia whose telephone number is (571) 272-3792.


The examiner can normally be reached on Monday thru Thursday 7-5.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Christian LaForgia
Patent Examiner
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clf


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